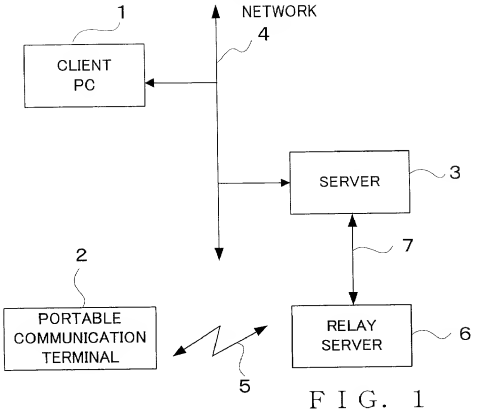
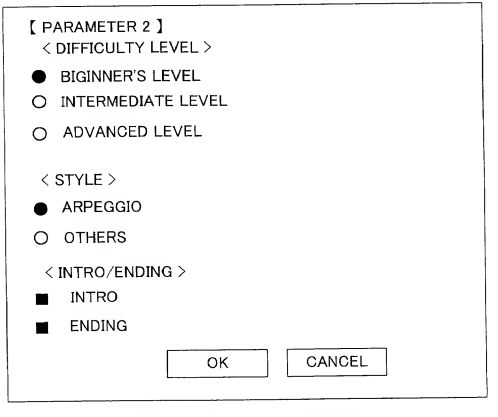


FIG. 1



PARAMETER 2 INPUT SCREEN

FIG. 6

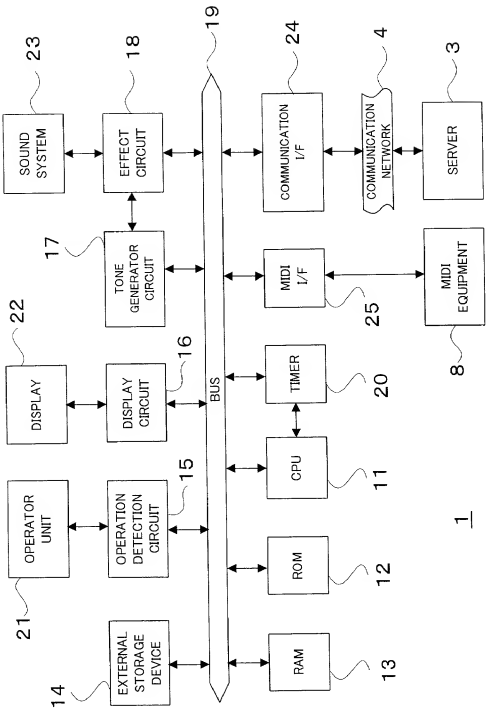

1
BUS
19
CPU
11
ROM
12
RAM
13
TIMER
20
EXTERNAL STORAGE DEVICE
14
OPERATOR UNIT
21
OPERATION DETECTION CIRCUIT
15
DISPLAY
22
DISPLAY CIRCUIT
16
TONE GENERATOR CIRCUIT
17
EFFECT CIRCUIT
18
SOUND SYSTEM
23
MIDI I/F
25
MIDI EQUIPMENT
8
COMMUNICATION I/F
24
COMMUNICATION NETWORK
4
SERVER
3

FIG. 2

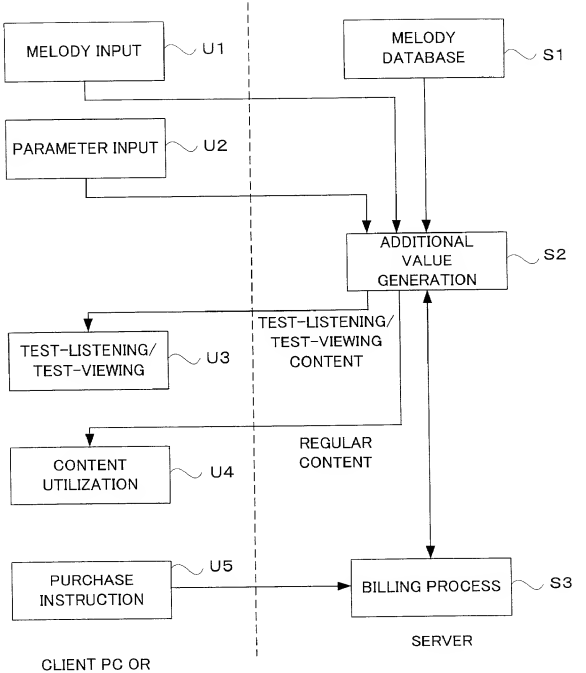
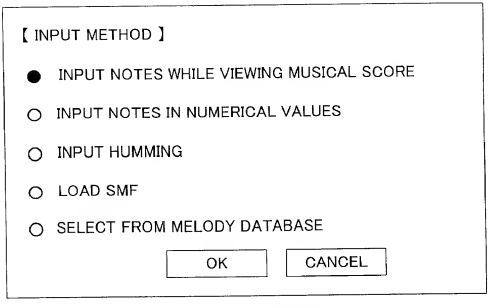
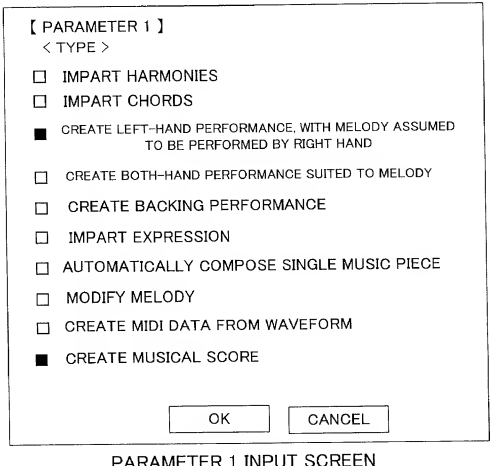

MELODY INPUT
U1
MELODY DATABASE
S1
PARAMETER INPUT
U2
ADDITIONAL VALUE GENERATION
S2
TEST-LISTENING/ TEST-VIEWING
U3
TEST-LISTENING/ TEST-VIEWING CONTENT
REGULAR CONTENT
CONTENT UTILIZATION
U4
PURCHASE INSTRUCTION
U5
BILLING PROCESS
S3
SERVER
CLIENT PC OR PORTABLE COMMUNICATION TERMINAL

FIG. 3



MELODY INPUT SCREEN

F I G. 4



PARAMETER 1 INPUT SCREEN

F I G. 5

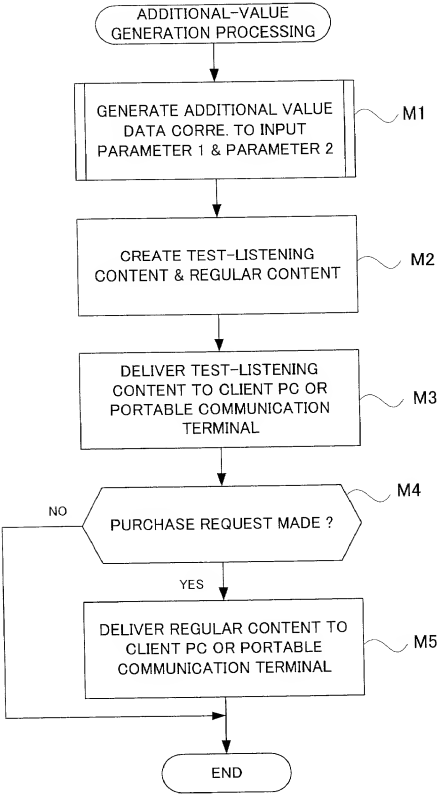

ADDITIONAL-VALUE GENERATION PROCESSING
GENERATE ADDITIONAL VALUE DATA CORRE. TO INPUT PARAMETER 1 & PARAMETER 2
M1
CREATE TEST-LISTENING CONTENT & REGULAR CONTENT
M2
DELIVER TEST-LISTENING CONTENT TO CLIENT PC OR PORTABLE COMMUNICATION TERMINAL
M3
PURCHASE REQUEST MADE ?
M4
NO
YES
DELIVER REGULAR CONTENT TO CLIENT PC OR PORTABLE COMMUNICATION TERMINAL
M5
END

FIG. 7

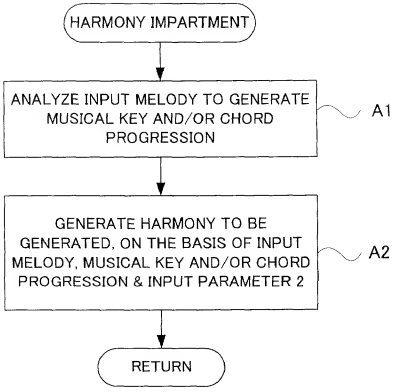

HARMONY IMPARTMENT
ANALYZE INPUT MELODY TO GENERATE MUSICAL KEY AND/OR CHORD PROGRESSION
A1
GENERATE HARMONY TO BE GENERATED, ON THE BASIS OF INPUT MELODY, MUSICAL KEY AND/OR CHORD PROGRESSION & INPUT PARAMETER 2
A2
RETURN

FIG. 8

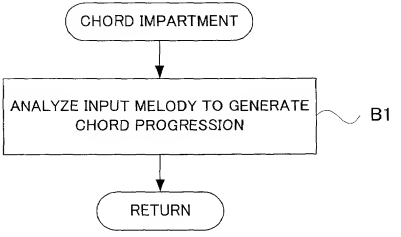

CHORD IMPARTMENT
ANALYZE INPUT MELODY TO GENERATE CHORD PROGRESSION
B1
RETURN

FIG. 9

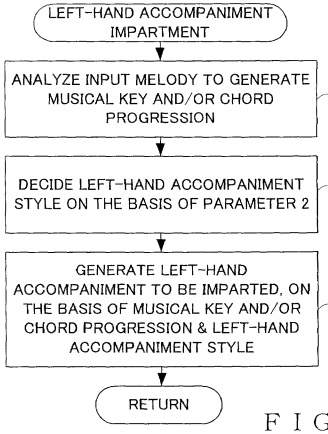

LEFT-HAND ACCOMPANIMENT IMPARTMENT
ANALYZE INPUT MELODY TO GENERATE MUSICAL KEY AND/OR CHORD PROGRESSION
C1
DECIDE LEFT-HAND ACCOMPANIMENT STYLE ON THE BASIS OF PARAMETER 2
C2
GENERATE LEFT-HAND ACCOMPANIMENT TO BE IMPARTED, ON THE BASIS OF MUSICAL KEY AND/OR CHORD PROGRESSION & LEFT-HAND ACCOMPANIMENT STYLE
C3
RETURN

FIG. 10

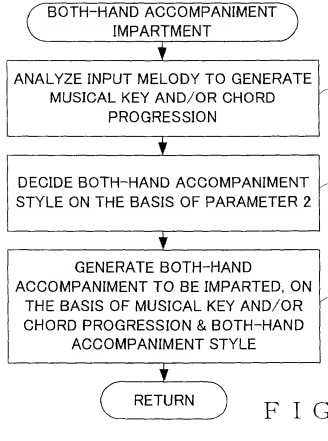

BOTH-HAND ACCOMPANIMENT IMPARTMENT
ANALYZE INPUT MELODY TO GENERATE MUSICAL KEY AND/OR CHORD PROGRESSION
D1
DECIDE BOTH-HAND ACCOMPANIMENT STYLE ON THE BASIS OF PARAMETER 2
D2
GENERATE BOTH-HAND ACCOMPANIMENT TO BE IMPARTED, ON THE BASIS OF MUSICAL KEY AND/OR CHORD PROGRESSION & BOTH-HAND ACCOMPANIMENT STYLE
D3
RETURN

FIG. 11

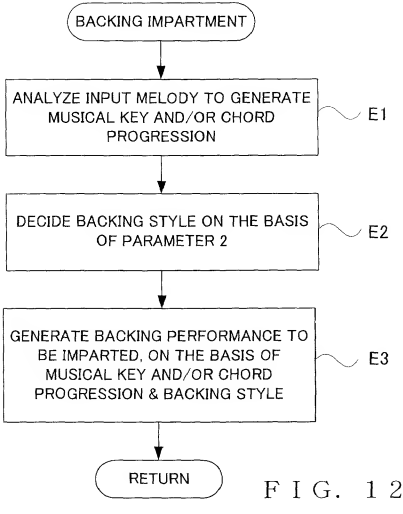

BACKING IMPARTMENT
ANALYZE INPUT MELODY TO GENERATE MUSICAL KEY AND/OR CHORD PROGRESSION
E1
DECIDE BACKING STYLE ON THE BASIS OF PARAMETER 2
E2
GENERATE BACKING PERFORMANCE TO BE IMPARTED, ON THE BASIS OF MUSICAL KEY AND/OR CHORD PROGRESSION & BACKING STYLE
E3
RETURN

FIG. 12

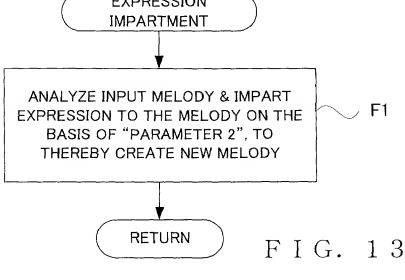

EXPRESSION IMPARTMENT
ANALYZE INPUT MELODY & IMPART EXPRESSION TO THE MELODY ON THE BASIS OF "PARAMETER 2", TO THEREBY CREATE NEW MELODY
F1
RETURN

FIG. 13

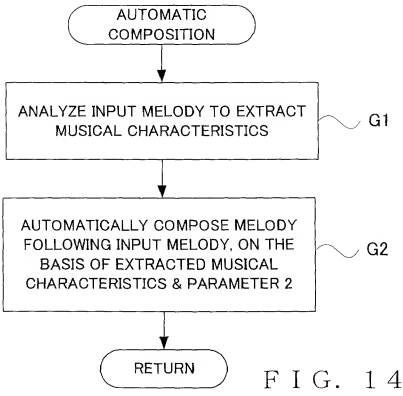

AUTOMATIC COMPOSITION
ANALYZE INPUT MELODY TO EXTRACT MUSICAL CHARACTERISTICS
G1
AUTOMATICALLY COMPOSE MELODY FOLLOWING INPUT MELODY, ON THE BASIS OF EXTRACTED MUSICAL CHARACTERISTICS & PARAMETER 2
G2
RETURN

FIG. 14

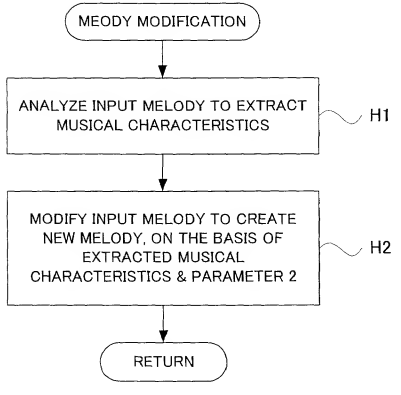

MEODY MODIFICATION
ANALYZE INPUT MELODY TO EXTRACT MUSICAL CHARACTERISTICS
H1
MODIFY INPUT MELODY TO CREATE NEW MELODY, ON THE BASIS OF EXTRACTED MUSICAL CHARACTERISTICS & PARAMETER 2
H2
RETURN

FIG. 15

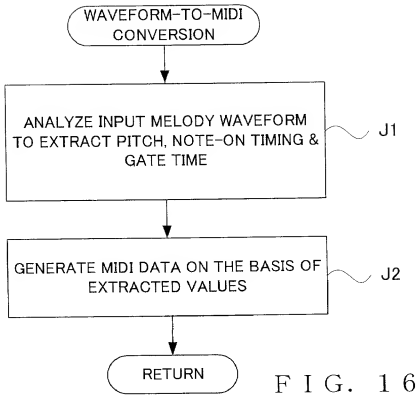

WAVEFORM-TO-MIDI CONVERSION
ANALYZE INPUT MELODY WAVEFORM TO EXTRACT PITCH, NOTE-ON TIMING & GATE TIME
J1
GENERATE MIDI DATA ON THE BASIS OF EXTRACTED VALUES
J2
RETURN

FIG. 16

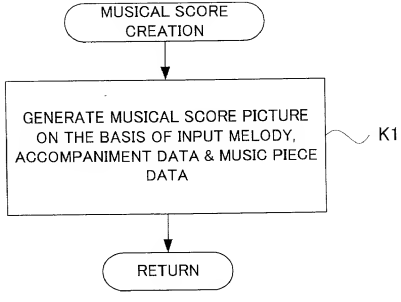

MUSICAL SCORE CREATION
GENERATE MUSICAL SCORE PICTURE ON THE BASIS OF INPUT MELODY, ACCOMPANIMENT DATA & MUSIC PIECE DATA
K1
RETURN

FIG. 17

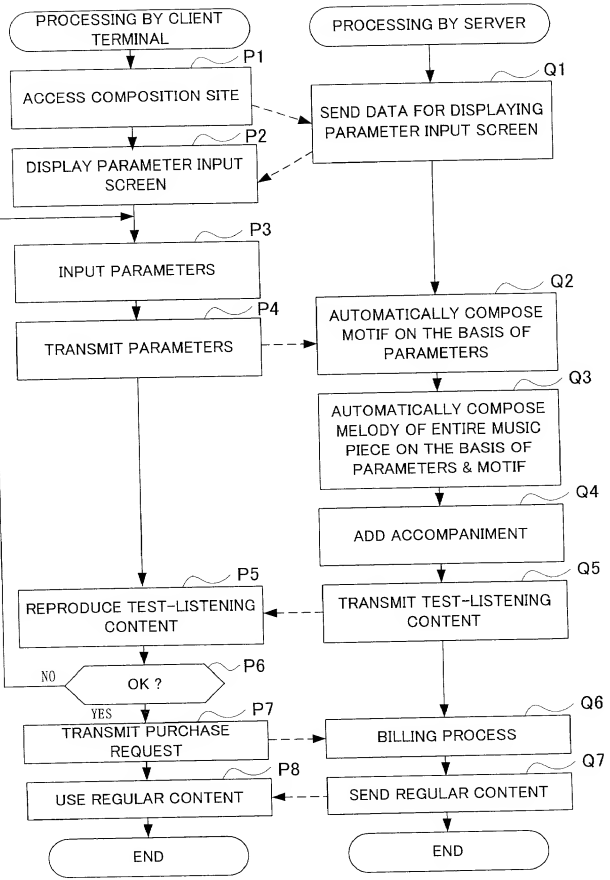

PROCESSING BY CLIENT TERMINAL
PROCESSING BY SERVER
P1
ACCESS COMPOSITION SITE
Q1
SEND DATA FOR DISPLAYING PARAMETER INPUT SCREEN
P2
DISPLAY PARAMETER INPUT SCREEN
P3
INPUT PARAMETERS
Q2
AUTOMATICALLY COMPOSE MOTIF ON THE BASIS OF PARAMETERS
P4
TRANSMIT PARAMETERS
Q3
AUTOMATICALLY COMPOSE MELODY OF ENTIRE MUSIC PIECE ON THE BASIS OF PARAMETERS & MOTIF
Q4
ADD ACCOMPANIMENT
P5
Q5
REPRODUCE TEST-LISTENING CONTENT
TRANSMIT TEST-LISTENING CONTENT
NO
OK ?
P6
YES
P7
Q6
TRANSMIT PURCHASE REQUEST
BILLING PROCESS
P8
Q7
USE REGULAR CONTENT
SEND REGULAR CONTENT
END
END

FIG. 18

TOKYO 0794986O

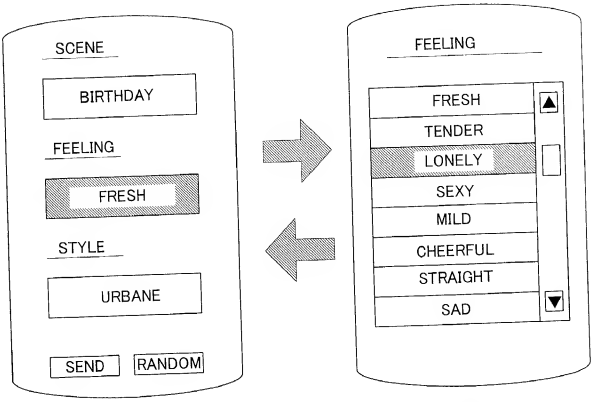


FIG. 19